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## KNITTED FABRIC FOR PRODUCING INDIGO-DYED COTTON DENIM JEANS

## BACKGROUND OF THE INVENTION

**1. Field of the Invention**

5       The present invention relates to a knitted fabric for producing indigo-dyed cotton denim jeans, which is suitable for producing four-season type jeans, in textile fabrics for producing jeans, and more particularly, to a knitted fabric for producing indigo-dyed cotton denim jeans, in which raw yarn obtained by dyeing 100% cotton yarn with natural indigo dyestuffs  
10 is knitted by a ring-type knitting machine, to thus provide the knitted fabric for producing four-season type indigo-dyed cotton denim jeans which possesses color tones such as blue and black peculiar to jeans as well as possesses functions such as flexibility, ventilation, warmth-keeping, and elasticity, and which can be also put on in midsummer and midwinter.

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**2. Description of the Related Art**

A raw fabric such as cotton denim which is produced from raw yarn formed of warp and weft is chiefly used as a conventional textile fabric for producing jeans.

20       A knitted fabric which is obtained by the steps of dyeing the raw fabric with indigo dyes and knitting the indigo-dyed raw fabric has a coarse and hard feeling of quality and causes creases frequently.

Also, jeans produced from the indigo-dyed cotton denim fabric cause friction with the skin in the dry midwinter and deficient absorption of

sweat in the wet midsummer. That is, if the jeans is put on in the midsummer, ventilation is deficient but solidity is maintained, to thereby cause a wearer to feel a high humidity. Meanwhile, if the jeans is put on in the midwinter, warmth-keeping performance is deficient to thus cause a  
5 coarse and hard feeling of the touch to the skin and to thus make a skin trouble.

Also, the conventional cotton denim jeans has the difficulty in washing and drying it.

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#### SUMMARY OF THE INVENTION

To solve the above problems, it is an object of the present invention to provide a knitted fabric for producing four-season indigo cotton denim jeans which can create new fashion found during development of new textile materials, in which the indigo-dyed cotton denim jeans is not knitted  
15 by a cotton knitting machine which discriminates warp and weft to thus cause skin friction and creases, but is knitted with the knitted fabric by a ring-type knitting machine without discrimination of warp and weft. Accordingly, the knitted fabric possesses functions of flexibility, ventilation, warmth-keeping, and elasticity, according to textual  
20 features of the knitted fabrics. Also, raw yarn before knitting is colored with blue or black which is a natural indigo dye, to thereby possess a color peculiar to the jeans and impose no burden of friction with the skin on a wearer. Also, although the four-season type indigo-dyed cotton denim jeans closely contact any portion of the wearer's body, they

can be put on even in midsummer and midwinter due to a soft feeling to the touch.

To accomplish the above object of the present invention, there is provided a knitted fabric for producing cotton denim jeans, the knitted  
5 fabric produced by the steps of: obtaining raw yarn by dyeing 100% cotton yarn with natural indigo dyestuffs of blue or black; directly inserting rubber yarn which has spandex features into the raw yarn; and simultaneously knitting the rubber-yarn inserted raw yarn by a ring-type knitting machine, to thus provide the knitted fabric for producing indigo-dyed cotton denim  
10 jeans which possesses spandex features, and peculiar functions of preventing creases and friction with the skin.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

The above and other objects and advantages of the present invention  
15 will become more apparent by describing the preferred embodiment thereof in detail with reference to the accompanying drawings in which:

FIGs. 1A and 1B are tables showing Test Results of a knitted fabric (#1) according to the present invention and an existing textile fabric (#2).

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#### **DETAILED DESCRIPTION OF THE INVENTION**

A preferred embodiment of the present invention will be described with reference to the accompanying drawings.

Test Results for comparing various performances of a knitted fabric

(#1) according to the present invention and an existing textile fabric (#2) with each other are illustrated in FIGs. 1A and 1B.

A cotton knitted fabric (#1) for producing cotton denim jeans is produced by the following steps. Raw yarn is obtained by dyeing or  
5 immersing 100% cotton yarn with or into natural indigo sol-type dyestuffs of blue or black. Rubber yarn which has spandex features is directly inserted into the raw yarn. The rubber-yarn inserted raw yarn is simultaneously knitted by a ring-type knitting machine which does not discriminates warp and weft. Accordingly, the knitted fabric is produced,  
10 which possesses functions of flexibility, ventilation, warmth-keeping performance, and elasticity, according to textual features of the knitted fabrics.

The knitted fabric (#1) for producing cotton denim jeans which has been produced by the above-described configurational processes is  
15 used as textile cloths such as blue jeans or other jeans. In this case, color tones peculiar to jeans are maintained, and textile cloths for producing four-season jeans which can be put on in midsummer and midwinter are provided. Also, the cotton denim jeans according to the present invention makes it easy to wash and dry it. Also, a feeling of the touch  
20 in inner and outer sides of the cotton denim jeans is soft, to thus make a wearer feel comfortable. Also, a feeling of the touch due to ventilation, warmth-keeping performance, and elasticity is natural to thus prevent a skin trouble. In particular, since the knitted fabric has a flexibility of all directions such as front and rear, and left and right, solidity

is enhanced and creases are prevented although clothes produced from the cotton denim jeans fabric closely contacts any portion of the human body.

In this connection, it can be seen that the cotton knitted fabric (#1) is superior to the existing cotton denim jeans fabric (#2), from  
5 Test Results for comparing various performances of a knitted fabric (#1) according to the present invention and an existing textile fabric (#2) with each other which were issued from FITI Testing & Research Institute in Korea.

As described above, the present invention knits knitted fabrics  
10 into cotton denim jeans with a ring-type knitting machine which does not discriminates warp and weft. Such a ring-type knitting machine is not used for knitting raw yarn into the knitted fabric. The present invention provides flexibility which can make the knitted fabric in all directions of front and rear, and left and right, and ventilation,  
15 according to the textual features of the knitted fabric. Also, the knitted fabric according to the present invention can be applied into a double or triple jacquard texture, to thereby provide an excellent warmth-keeping performance. In particular, the knitted fabric according to the present invention can be applied in a variety of forms,  
20 and is made through insertion of spandex rubber yarn, to thereby provide elasticity and solidity very usefully.

As described above, the present invention has been described with respect to a particularly preferred embodiment. However, the present invention is not limited to the above embodiment, and it is possible for

one who has an ordinary skill in the art to make various modifications and variations, without departing off the spirit of the present invention.

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